

REMARKS

Reconsideration of the above-mentioned application in view of the amendments above and the remarks following is respectfully requested.

Claims 1–14 were pending in the application. Claims 1 -14 have now been canceled and replaced by new claims 15- 24, to better define the invention. Support for new claims 15 to 24 can be found in the present application as filed, e.g. paragraphs [0011, [0019] and [0021] through [0027] of U.S. Patent Publication 2005/0202212; Figures 2 and 3, original claims 1 to 14; the specification as originally filed, e.g. page 5, lines 26 and 27 and page 6, lines 24 to 27; and priority document US 60/385,607 e.g. page 2, second full paragraph which is incorporated by reference in the present application. Support for the amendments in the specification of the terms 'longitudinal' to 'horizontal' and 'horizontal' to 'longitudinal' can be found in Figures 3 and 4 as filed. No new matter is introduced by these amendments. Applicant reserves the right to claim in the future subject matter not claimed in the current set of claims.

Claim Objections and Claim Rejections- 35 U.S.C. § 112

In the Office Action, claim 1 was objected to for a number of informalities relating to discrepancies between reference numerals in the claim and the specification and to a typographical error. Claims 1 -14 have also been rejected under 35 USC § 112 as being indefinite because of unclear as to which lines are which in the cellular material.

Claims 1 to 14 have been canceled by way of this Amendment, therefore, the objection to claim 1 and the rejections to claims 1 to 14 under 35 U.S.C. § 112 are moot.

However, Applicant submits herewith a substitute specification and a marked-up copy version showing the amendments made, a replacement sheet of drawings for Figures 3 and 4, and new claims 15 to 24. The specification has been amended to correct inconsistencies regarding the use of the terms 'longitudinal' and 'horizontal' throughout the specification. The specification was further amended to correct and/or add numeral references relating to elements appearing in Figure 3. Figure 3 was also amended

accordingly to correctly associate numeral references with corresponding elements. Figure 4 was amended to include the longitudinal pre-welded lines at the bottom part of the figure as in corresponding Figure 3 (i.e., continuation of lines 310 and 312 as well as the short longitudinal lines at the end of the sleeves), which erroneously were omitted from the original Figure 4. Support for the amendment to Figure 4 can be found in Figure 3 as filed. Figure 4 was further amended by adding numeral references in order to enhance clarity. Applicant respectfully submits that the numerals 310 and 312 refer to the non-continuous longitudinal line extending along the air inlet path 316, which is interrupted by non-welded sections 314.

In light of the amendments submitted, Applicant respectfully requests that the objections and rejections raised in sections 1-3 of the Office Action be withdrawn.

Claim Rejection under 35 USC § 102

Claims 1-14 have been rejected under 35 U.S.C. § 102(e) as being anticipated by either International Patent Publication WO02/055293 or U.S. Patent Publication No. US2002/0094393 both to Matarasso, the common inventor with the instant application.

Claims 1 to 14 have been canceled by way of this Amendment, therefore, the rejections to claims 1 to 14 under 35 U.S.C. § 102(e) are moot.

Applicant respectfully traverses the Examiner's rejection at least in view of new claims 15 to 24. Applicant respectfully submits that the present invention teaches new features not taught in either WO02/055293 or U.S. Patent Publication No. US2002/0094393, which result in an improved inflated cushioning material of reduced non-inflated sections.

Applicant respectfully submits that neither WO02/055293 nor U.S. Patent Publication No. US2002/0094393 teach all the limitations recited in claims 15 to 24 of the present invention. In particular, neither WO02/055293 nor U.S. Patent Publication No. US2002/0094393 teach the limitations recited in the third and fourth paragraph of new claim 15, namely that the pre-welded pattern includes at least one discontinuous

longitudinal line (310, 312) that extends along the air entry passage and comprises a plurality of pre-welded sections of a length larger than the width of the sleeves. Support for these features are found in original Figure 3. Applicant submits that Figure 1 of the present application illustrates an embodiment of an inflatable material taught by WO02/055293 and that the object of the present invention is to provide an improved product of reduced non-inflated areas (See page 2, lines 16-17 of the present specification as filed). In accordance with some embodiments of the invention, this object is obtained by the longitudinal pre-welded sections 310, 312 which significantly reduce the area of the non-inflated sections in the inflated product as demonstrated by comparing Figures 1 and 4 and as explicitly mentioned on page 7, lines 20-29 of the present specification as filed.

Applicant respectfully submits that due to the unclarity issues referred to in sections 1-3 (Claim Objections and Claim Rejections Under 35 U.S.C. § 112) of the Office Action, the Examiner had incorrectly identified the discontinuous longitudinal line with the short longitudinal sections that partially close the open ends of the diagonal sleeves, already taught in WO02/055293. Applicant believes that the amendments now made remove the ambiguities and clarify the scope of the present invention. Applicant also believes that new claim 15 now clearly distinguishes the present application from both WO02/055293 and U.S. Patent Publication No. US2002/0094393.

Claim Rejection under 35 USC § 103

Claims 1-14 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over WO0218211 (Eliachar) in view of US2633442 (Caldwell).

Claims 1 to 14 have been canceled by way of this Amendment, therefore, the rejections to claims 1 to 14 under 35 U.S.C. § 103(a) are moot.

Applicant respectfully traverses the Examiner's rejections, at least in view of the new claims 15 to 24.

The present invention teaches an inflatable material which is configured to form an inflatable cellular cushioning material of a reduced non-inflated area on an as-needed basis by continuously inflating the material by a single air injection pipe and applying sealing lines across the width of the inflated material at every predetermined distance in a step by step manner. The inflatable material comprises two plastic layers that are pre-welded to form a plurality of inflatable diagonal sleeves in communication with a longitudinal air passage and a discontinuous pre-weld longitudinal line along the air passage. The unique pre-welded pattern of the material allows on-site continuous formation of an inflated cushioning material of a real cellular structure, namely wherein a plurality of individual cells span across both dimensions of the final product.

WO0218211 teaches pre-welded inflatable material to be inflated and sealed at the site of intended use. However, the pre-welded pattern, the method production and the final product taught by WO0218211 are completely different from those taught by the present invention. In particular the pre-welded pattern taught by WO0218211 allows for the formation of only two inflated chambers in each row of the final product. This is in sharp contrast to the present invention, according to which the pre-welded pattern may provide for any desired number of individual inflated cells in a row by varying the spacing and angle of the pre-welded diagonal lines. Moreover, not only does WO0218211 provide for only two inflated chambers in a row, it also does not allow for any flexibility in varying the size and/or the shape of the inflated cells at the sealing stage. In other words, the size and shape of the chambers in the final product as taught by WO0218211 are already defined at the pre-welded stage. In contrast, the present invention allows varying the size and shape of the inflated cells also at the sealing stage by varying the distance between the sealing lines and/or the angle between the sealing lines and the diagonal sleeves. Thus, the present invention teaches that inflated materials of different structures may be obtained from the same inflatable material. Furthermore, according to WO0218211, the air injection passage must be located in a central region of the material between the chamber pairs, while according to the present invention, the air injection passage may extend along one of the longitudinal sides (See page 7, lines 25-29 of the present application as filed).

Finally, with regard to WO0218211, Applicant would like to point out another difference regarding the sealing stage. While WO0218211 does not specify in detail how sealing is performed, it is clear that sealing is made by longitudinal sealing lines that run in on both sides of the air passage in parallel thereto. In contrast, in the present invention each sealing lines extends across the width of the material in a direction intersecting the air passage.

Caldwell teaches the formation of tufted material comprising individual air-filled pockets by a method which is completely different from the present invention and from WO0218211. Caldwell does not teach an inflatable material which is pre-welded in a predetermined pattern that allows formation of cellular cushioning material at the site of use in a continuous manner by inflating the material through a single air passage. Rather, Caldwell teaches forming the tufted material by placing one sheet over a plurality of supporting and heating elements, then placing another sheet over the first sheet while separating the sheets by a plurality of separating elements and pressing the sheets against the heating elements to create first parallel sealing lines. Next, the separating elements are pulled out, the sheets are rotated and placed over the heating elements to form second sealing lines which cross the first sealing lines.

In the Office Action the Examiner argues that "it would be obvious to one having ordinary skill in the art at the time the invention was made to WO'211 to orient the weld lines diagonally, as taught by Caldwell, motivated by the fact that Caldwell discloses it is known to orient the lines either perpendicular or diagonal across the sheet material used to form the cellular material". See Office Action, page 4, 5th full paragraph. Applicant respectfully objects to the Examiner's argument. Applicant respectfully submits that the use of diagonal sleeves is far from being a mere choice of geometry but is the feature which allows the formation of a cellular material in a continuous manner. Applicant further submits that at the time the invention described in WO0218211 was made, the teachings of Caldwell had already been known for more than 50 years. Yet, WO0218211 which is aimed at substantially the same aim as of the present invention, namely a pre-welded inflatable cushioning material that can be inflated and sealed at the site of use,

Response to Office Action of April 18, 2008

does not mention, or even suggest a pre-weld pattern that comprises diagonal lines that allow for the formation of more than two inflated cells in a row.

In light of the above, Applicant respectfully submits that combining the teachings of WO0218211 and Caldwell would not result in the present invention as claimed in new claim 15, nor does it render the invention obvious.

The response refers primarily to independent claims 15 of the present invention, and the patentability of the dependent claims 16 to 24 follow at least for the reason of being dependent from independent claim that is patentable.

Conclusion

In view of the above amendments and remarks it is respectfully submitted that all pending claims are in condition for allowance. A timely allowance of the claims is respectfully requested.

Respectfully submitted,

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AMENDMENTS IN THE DRAWINGS

Attached please find replacement drawing sheets 3 and 4 to substitute the corresponding original sheets.

Applicant respectfully submits that the specification was amended to correct and/or add numeral references relating to elements appearing in Figure 3, therefore, Figure 3 was amended accordingly to correctly associate numeral references with corresponding elements.

Applicant also respectfully submits that the numerals 310 and 312 refer to the non-continuous longitudinal line extending along the air inlet path 316, which is interrupted by non-welded sections 314. Figure 4 was amended to include the longitudinal pre-welded lines at the bottom part of the figure as in corresponding Figure 3 (i.e., continuation of lines 310 and 312 as well as the short longitudinal lines at the end of the sleeves), which erroneously were omitted from the original figure. Figure 4 was further amended by adding numeral references in order to enhance clarity. Applicant also respectfully submits that the numerals 310 and 312 refer to the non-continuous longitudinal line extending along the air inlet path 316, which is interrupted by non-welded sections 314.